TYPES OF COMPUTERS

Classification of Digital Computers

- Computers are classified according to sizes, speed and memory capacity. Computers are different types:

- Super Computers
- Mainframe Computers
- Mini Computers
- Micro/Personal Computers
  - Desktop Computes
  - Laptop Computers
  - Tablet Computers

DEC PDP-8 Minicomputer   IBM AS/400 Minicomputer   IBM Z10 Mainframe computer

IBM Z900 Mainframe computer   ASCI Red Supercomputer   NVIDIA Tesla Personal Supercomputer

❖ **MICRO COMPUTER**

  ➢ These computer are small in size and cost less.

  ➢ They are usually designed for personal use, therefore, they are also called personal computers.

  ➢ They are mainly used in homes, schools, offices, shops, banks, etc. These computer are given different names according to their usage.

  ➢ Examples: Commodore 64, IBM PC

★ Desktop computers: These computers are designed to fit comfortably on top of desks. Desktop computers typically come with several units, such as monitor, CPU, Keyboard and mouse which are connected to each other and work like a single unit.

★ **Laptop computers:** These computers are small in size and can be placed on the lap. These are battery operated and portable. We can perform all the tasks as we do on a desktop. But laptops are more expensive than desktop computers. These computers are mainly used by business travelers. We can fold down the screen of laptop on to the keyboard when not in use. Laptop usually come in 13 to 15 inches screen.

★ **Tablet computers:** These computers are smaller and lighter than laptop computers but bigger than smart phones. Instead of a keyboard and mouse, tablets use touch-sensitive screen for typing and navigation. Tablets have 7 inch, 8 inch or 10 inch screen. Popular uses of tablets include reding e-books, watching movies, viewing photos, browsing net etc.

❖ **MINI COMPUTERS**

➢ These computers are bigger in size than the Micro computers.

➢ They have a higher processing speed and are costlier than Micro computers.

➢ These computers are capable to support 4 to about 200 users simultaneously.

➢ They are used in banks, universities and in any other big organizations.

➢ **Example: PDP-8**

❖ **MAINFRAME COMPUTERS**

➤ These computers are very powerful.

➤ They are big in size with a large memory and high speed.

➤ They are designed to tackle huge amount of data.

➤ More than hundred users can use a mainframe computer simultaneously. These computers are used in networked environment.

➤ It is very expensive and are used in large business organizations, universities, banks, scientific laboratories, airline and railway ticket reservation, stock exchange markets, etc.

➤ Examples: IBM Z series, PDP-10 and System Z10.

❖ **SUPER COMPUTERS**

➤ They are the most powerful computers with a huge processing speed.

➤ These computers are used for weather forecasting, space research, satellite control, etc.

➤ Examples: CRAY-1, CRAY-2, PARAM, Tiahne-2, Sunway Taihulight,etc

➤ Summit is the fastest supercomputer in the world, as of June 8, 2018, developed by IBM for use at Oak Ridge National Laboratory, USA.

➤ PARAM is series of supercomputers designed and assembled by the centre for development of advanced computing (C-DAC), India. The latest machine in the series is the PARAM Kanchenjunga.